

FIG. 1

DSL TRANSMISSION SYSTEM

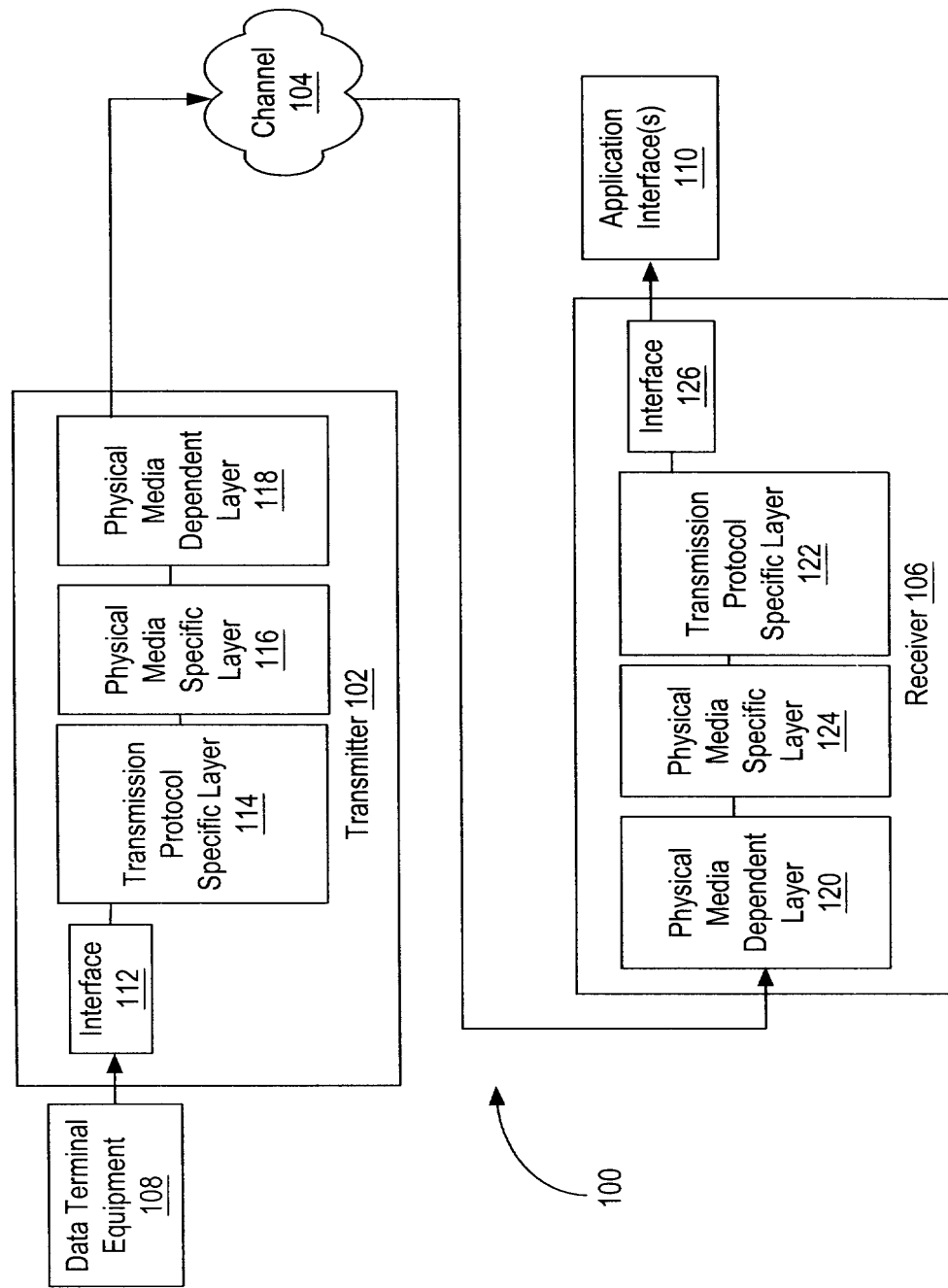


FIG. 2

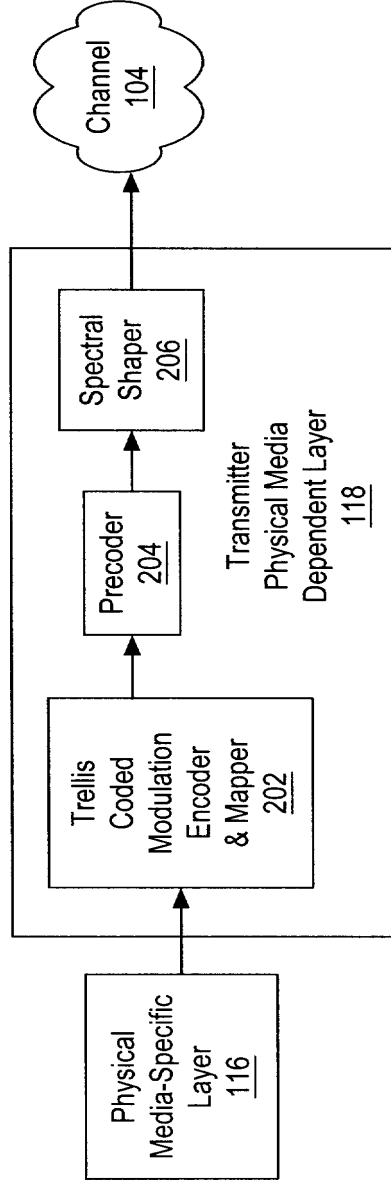


FIG. 3

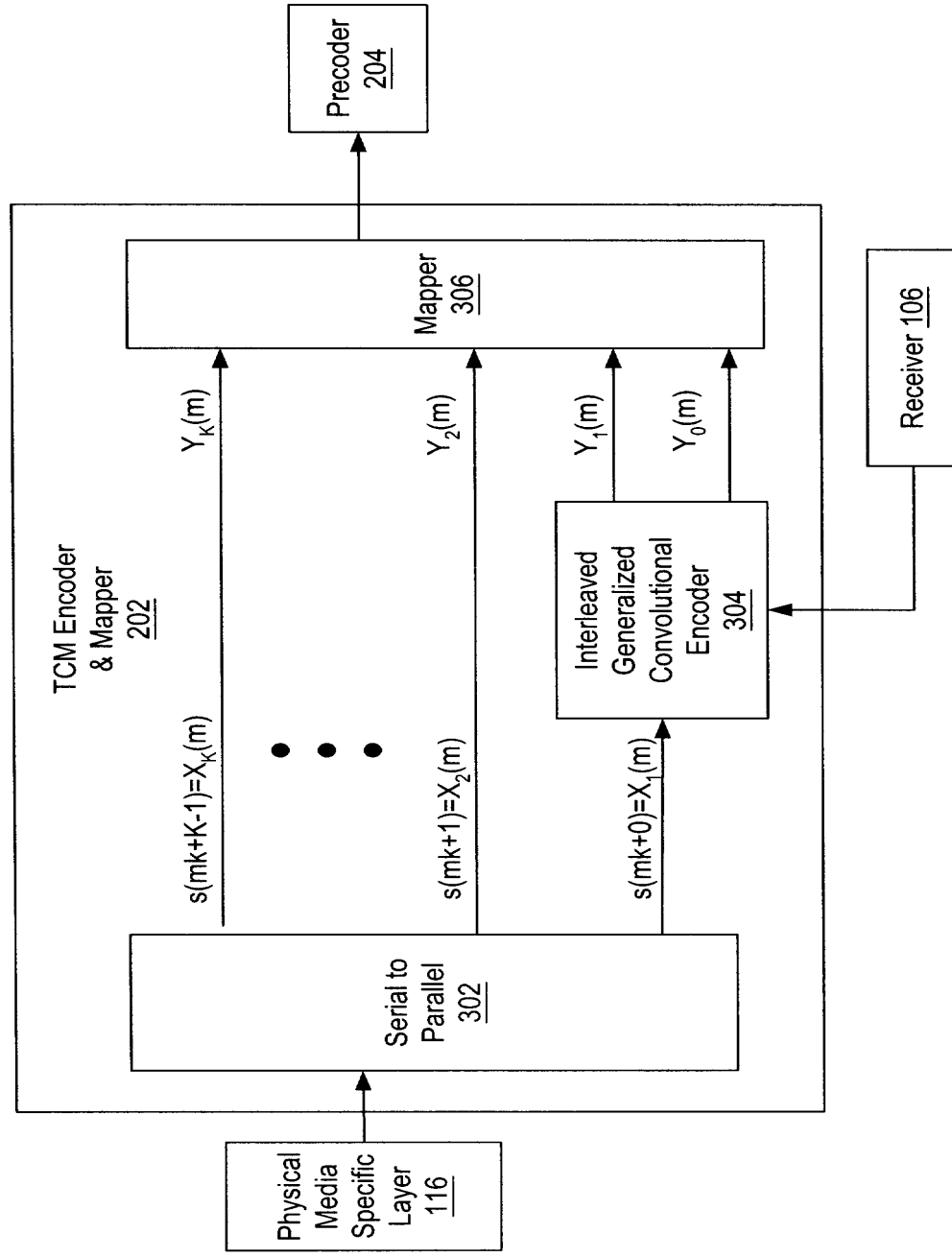


FIG. 4
Convolutional Encoder
(Prior Art)

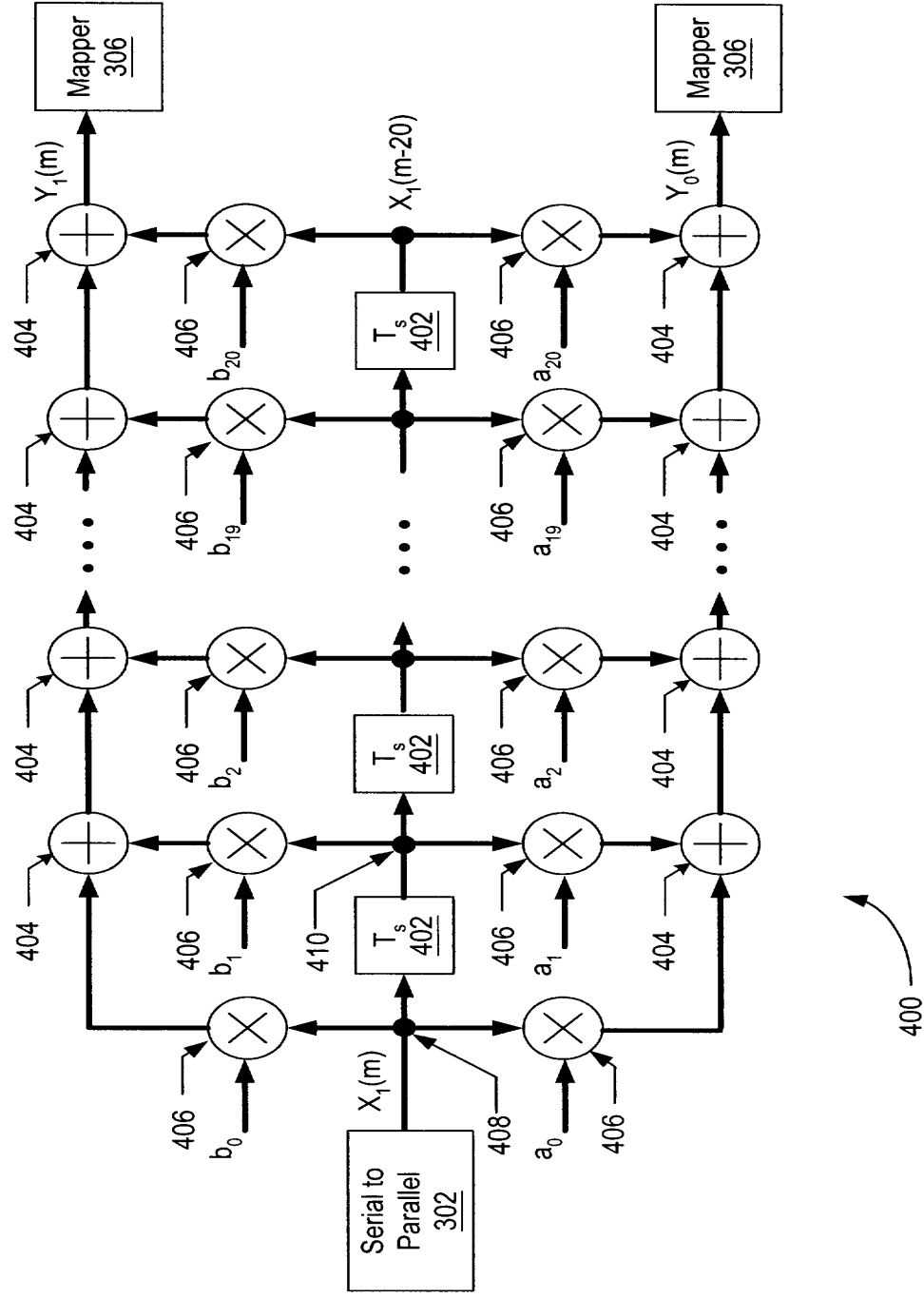


FIG. 5
Interleaved Generalized
Convolutional Encoder
(First Embodiment)

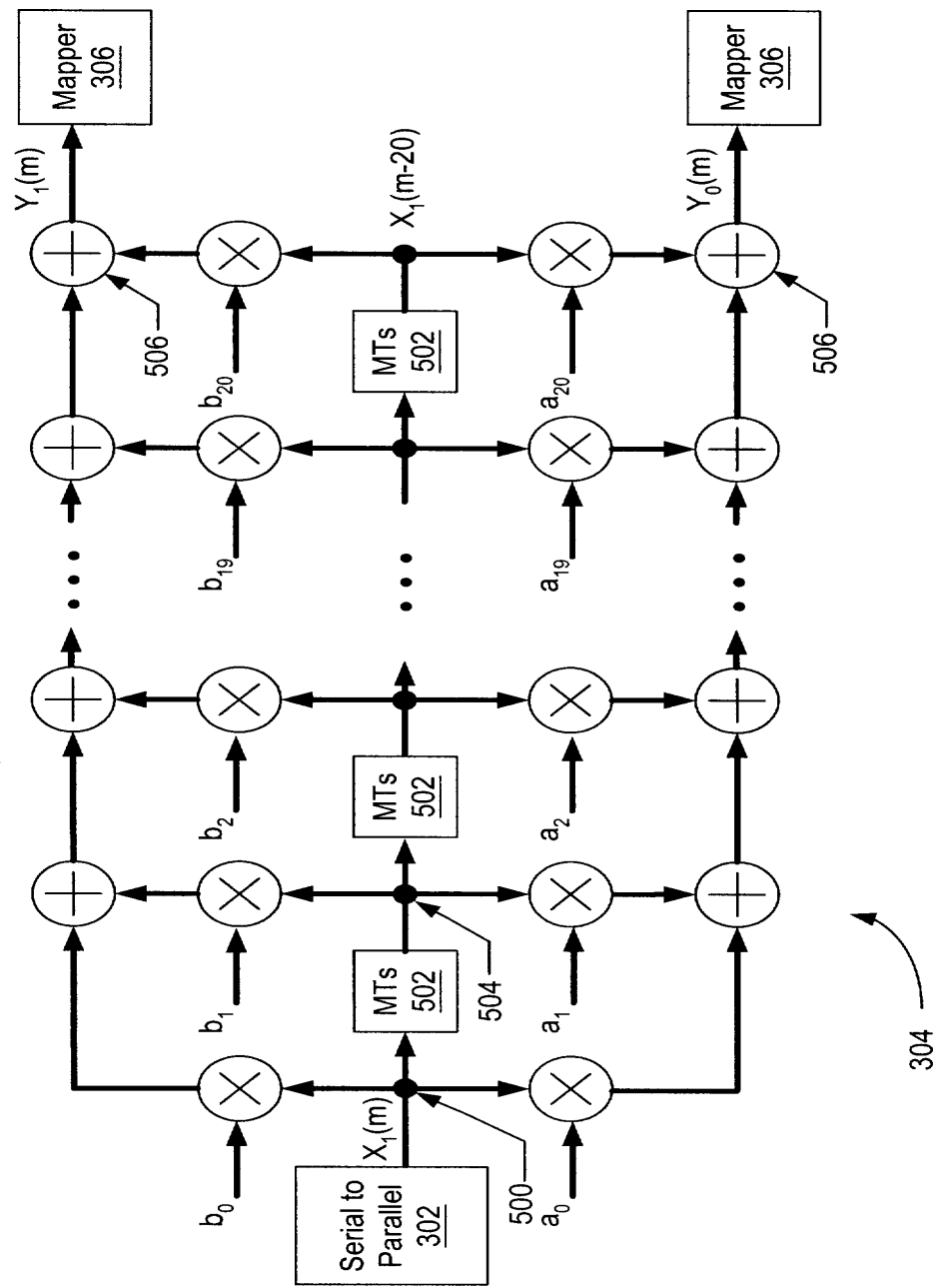


FIG. 6

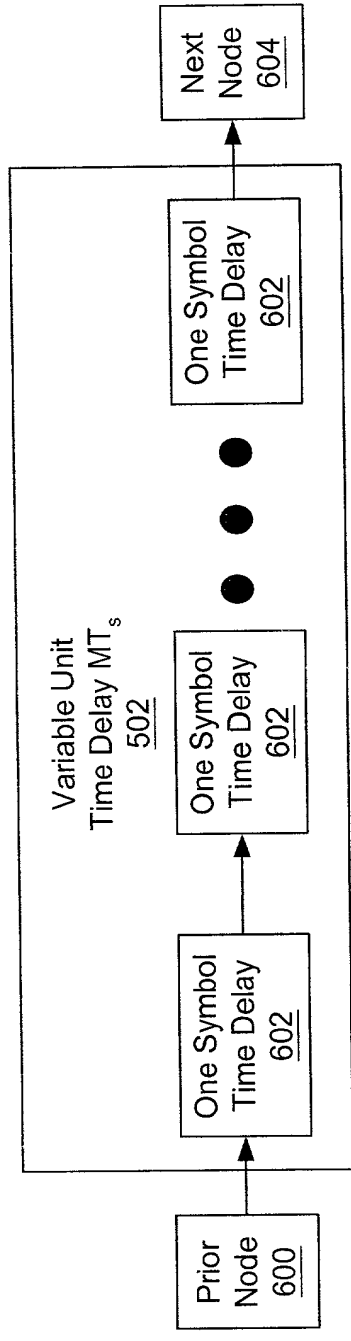


FIG. 7
Activation Frame Format (Prior Art)

Activation Frame Bit LSB:MSB	Definition
1:14	Frame Sync for T_c and T_r : 11111001101011 ₂ , where the left-most bit is sent first in time
	Frame Sync for F_c : 11111001101011 ₂ , where the left-most bit is sent first in time
15:36	Precoder Coefficient 1: 22 bit signed two's complement format with 17 bits after the binary point, where the LSB is sent first in time.
37:58	Precoder Coefficient 2
59:3952	Precoder Coefficients 3 – 179
3953:3974	Precoder Coefficient 180
3975:3995	Encoder Coefficient A: 21 bits where the LSB is sent first in time
3996:4016	Encoder Coefficient B: 21 bits where the LSB is sent first in time
4017:4144	Vendor Data: 128 bits of proprietary information
4145:4211	Reserved: 67 bits set to logical zeros
4212:4227	CRC: c_1 sent first in time, c_{15} sent last in time

FIG. 8
Interleaved Generalized Convolutional
Encoder Activation Frame Format

Activation Frame Bit LSB:MSB	Definition
1:14	Frame Sync for T_c and T_r : 1111001101011 ₂ , where the left-most bit is sent first in time
	Frame Sync for F_c : 11111001101011 ₂ , where the left-most bit is sent first in time
15:36	Precoder Coefficient 1: 22 bit signed two's complement format with 17 bits after the binary point, where the LSB is sent first in time.
37:58	Precoder Coefficient 2
59:3952	Precoder Coefficient 3 –179
3953:3974	Precoder Coefficient 180
3975:3995	Encoder Coefficient A: 21 bits where the LSB is sent first in time
3996:4016	Encoder Coefficient B: 21 bits where the LSB is sent first in time
4017:4024	Multiplicity of Convolution Encoders, M: 8 bits where the LSB is sent first in time
4025:4152	Vendor Data: 128 bits of proprietary information
4153:4211	Reserved: 59 bits set to logical zeros
4212:4227	CRC: c_1 sent first in time, c_{15} sent last in time

FIG. 9

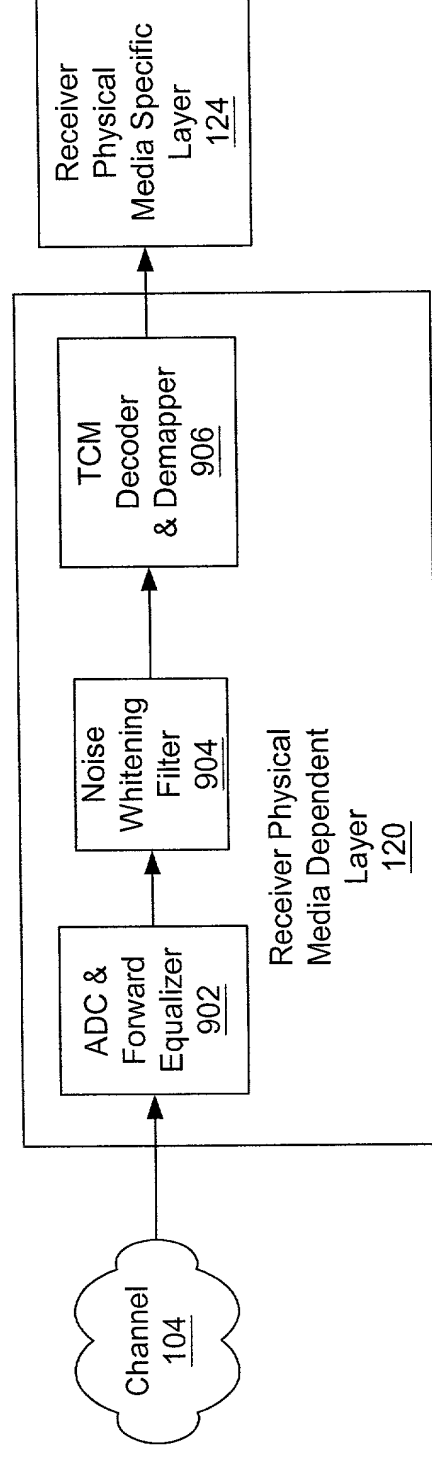


FIG. 10

